



GP/651

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Docket No.: 13232 US1 (C38435/128425)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

RECEIVED

In re Application of :
Dirk KOSTREWA, *et al.*

JUN 19 2002

Serial No.: 10/062,848

Examiner: Not yet assigned TECH CENTER 1600/2900

Filed: February 1, 2002

Art Unit: 1651

For: **MODIFIED PHYTASES**

New York, New York
May 29, 2002

INFORMATION DISCLOSURE STATEMENT UNDER RULE 1.56

Commissioner for Patents
Washington, DC 20231

Sir:

Applicants wish to make of record the following documents (Form PTO-1449 is enclosed). Copies of these documents are not being submitted herewith, because each was made of record in Parent Application Serial No. 09/044,718, filed March 19, 1998, to which the present application claims benefit under 35 USC §120. *See*, 37 CFR 1.98(d). A copy of Document C41 (i.e., the English language summary of Document C13) is being provided herewith as a separate document.

U.S. PATENT DOCUMENTS

A1	5,436,156
A2	5,443,979
A3	5,863,533
A4	6,291,221
A5	6,358,722
A6	6,153,418
A7	USSN 09/343,126

FOREIGN PATENT DOCUMENTS

B1	EP 0 299 108 B1
B2	EP 0 035 204 A2

B3 EP 0 420 358 A1
 B4 EP 0 422 697 A1
 B5 EP 0 619 369 A1
 B6 EP 0 684 313 A2
 B7 EP 0 747 483 A2
 B8 EP 0 758 018 A1
 B9 EP 0 897 010 A2
 B10 EP 0 897 985 A2
 B11 WO 91/14773
 B12 WO 94/03612
 B13 WO 93/16175
 B14 WO 95/00662
 B15 WO 98/54980
 B16 DE 1 492 060

OTHER DOCUMENTS

- C1 Dox, *et al.*, "Phytase in Lower Fungi," J. Biol. Chem., Vol. 10, pp. 183-186 (1911)
- C2 Howson, *et al.*, "Production of Phytate-Hydrolysing Enzyme By Some Fungi," Enzyme Microb. Technol., Vol. 5, pp. 377-382 (1983)
- C3 Lambrechts, *et al.*, "Utilization Of Phytate By Some Yeasts," Biotech. Lett., Vol. 14, pp. 61-66 (1992)
- C4 Shieh, *et al.*, "Survey of Microorganisms for the Production of Extracellular Phytase," Appl. Microbiol., Vol. 16, pp. 1348-1351 (1968)
- C5 Van Hartingsveldt, *et al.*, "Cloning, Characterization and Overexpression of the Phytase-Encoding Gene (*phyA*) of *Aspergillus niger*," Gene, Vol. 127, pp. 87-94 (1993)
- C6 Piddington, *et al.*, "The Cloning and Sequencing of the Genes Encoding Phytase (*phy*) and pH 2.5-Optimum Acid Phosphatase (*aph*) From *Aspergillus niger* var. *awamori*," Gene, Vol. 133, pp. 55-62 (1993)
- C7 Kraulis, "MOLSCRIPT: a Program to Produce Both Detailed and Schematic Plots of Protein Structures," J. Appl. Cryst., Vol. 24, pp. 946-950 (1991)
- C8 Merritt, *et al.*, "Raster3D Version 2.0. A Program for Photorealistic Molecular Graphics," Acta Cryst., Vol. D50, pp. 869-873 (1994)
- C9 Wodzinski, *et al.*, "Phytase," Advances in Applied Microbiology, Vol. 42, pp. 263-302 (1996)
- C10 Mitchell, *et al.*, "The Phytase Subfamily of Histidine Acid Phosphatases: Isolation of Genes For Two Novel Phytases From the Fungi *Aspergillus Terreus* and *Myceliophthora Thermophila*," Microbiology, Vol. 143, pp. 245-252 (1997)
- C11 Kostrewa, *et al.*, "Crystal Structure of Phytase From *Aspergillus ficuum* at 2.5 Å Resolution," Nature Structural Biology, Vol. 4, pp. 185-190 (1997)
- C12 Simons, *et al.*, "Improvement of Phosphorus Availability by Microbial Phytase in Broilers and Pigs," Br. J. Nutr., Vol. 64, pp. 525-540 (1990)
- C13 Schoner, *et al.*, "Vergleich der effekte von mikrobieller Phytase und anorganischem Phosphat auf die Leistungen und die Retention von

- Phosphor, Calcium und Rohasche bei Masthühnerküken in der Anfangsmast," J. Anim. Physiol. a. Anim. Nutr., Vol. 66, pp. 248-255 (1991) (English summary provided)
- C14 Jongbloed, *et al.*, "The Effect of Supplementary *Aspergillus niger* Phytase in Diets for Pigs on Concentration and Apparent Digestibility of Dry Matter, Total Phosphorous, and Phytic Acid in Different Sections of the Alimentary Tract," J. Anim. Sci., Vol. 70, pp. 1159-1168 (1992)
- C15 Perney, *et al.*, "The Effect of Dietary Phytase on Growth Performance and Phosphorous Utilization of Broiler Chicks," Poultry Sci., Vol. 72, pp. 2106-2114 (1993)
- C16 Farrell, *et al.*, "The Beneficial Effects of a Microbial Feed Phytase in Diets of Broiler Chickens and Ducklings," J. Anim. Physiol. a. Anim. Nutr., Vol. 69, pp. 278-283 (1993)
- C17 Broz, *et al.*, "Effects of Supplemental Phytase on Performance and Phosphorous Utilisation in Broiler Chickens Fed a Low Phosphorous Diet Without Addition of Inorganic Phosphates," Br. Poultry Sci., Vol. 35, pp. 273-280 (1994)
- C18 Dungalhoef, *et al.*, "Effects of Supplemental Microbial Phytase on Availability of Phosphorous Contained in Maize, Wheat and Triticale to Pigs," Animal Feed Sci. Technol., Vol. 49, pp. 1-10 (1994)
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- C20 Presentation by Dr. Luis Pasamontes at the Institute of Med. Microbiologie, Basel, Switzerland, February 11, 1997
- C21 Janecek, "Strategies for Obtaining Stable Enzymes," Process Biochem., Vol. 28, pp. 435-445 (1993)
- C22 Fersht, *et al.*, "Principles of Protein Stability Derived From Protein Engineering Experiments," Curr. Opin. Struct. Biol., Vol. 3, pp. 75-83 (1993)
- C23 Alber, "Mutational Effects on Protein Stability," Annu. Rev. Biochem., Vol. 58, pp. 765-798 (1989)
- C24 Matthews, "Mutational Analysis of Protein Stability," Curr. Opin. Struct. Biol., Vol. 1, pp. 17-21 (1991)
- C25 Matthews, "Genetic and Structural Analysis of the Protein Stability Problem," Biochemistry, Vol. 26, No. 22, pp. 6885-6888 (1987)
- C26 Stuber, *et al.*, "System For High-Level Production in *Escherichia coli* and Rapid Purification of Recombinant Proteins: Application to Epitope Mapping, Preparation of Antibodies, and Structure-Function Analysis," in Immunological Methods, eds. Lefkovits and Pernis, Academic Press Inc., Vol. IV, Academic Press Inc.: San Diego, CA, pp. 121-152 (1990)
- C27 Serrano, *et al.*, "Step-Wise Mutation of Barnase to Binase, A Procedure For Engineering Increased Stability of Proteins and an Experimental Analysis of the Evolution of Protein Stability," J. Mol. Biol., Vol. 233, pp. 305-312 (1993)
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- C29 Mullaney, *et al.*, "Positive Identification of a Lambda gt11 Clone Containing a Region of Fungal Phytase Gene by Immunoprobe and Sequence Verification," Appl. Microbiol Biotechnol., Vol. 35, pp. 611-614 (1991)
- C30 Lee, *et al.*, "Generation of cDNA Probes Directed by Amino Acid Sequence: Cloning of Urate Oxidase," Science, Vol. 239, pp. 1288-1291 (1988)
- C31 Conneely, "From DNA to Feed Conversion: Using Biotechnology to Improve Enzyme Yields and Livestock Performance," Biotechnology in the Feed Industry, T.P. Lyons (ed.), Alltech Technical Publications: Nicholasville, KY, pp. 57-66 (1992)
- C32 Neurath, *et al.*, The Proteins, Academic Press, New York, pg. 14 (1979)
- C33 Nunes, "Phytase: An Enzyme For Reduction of Phosphorous Pollution by Animal Livestock Production," Biol. Abstr., Vol. 98 (10) Ref. No. 126043 (1994)
- C34 Segueilha, *et al.*, "Purification and Properties of the Phytase From *Schwanniomyces castelli*," J. Fermentation and Bioeng., Vol. 74 (1), pp. 7-11 (1992)
- C35 Suzuki, *et al.*, "Ueber die Verbreitung von 'Anhydro-Oxy-Methylen-Diphosphor-Sauren Salzen' Oder 'Phytin' in Pflanzen," Bull. Coll. Agr., Tokyo Imp. Univ., Vol. 7, pp. 495-501 (1907)
- C36 Yamada, *et al.*, "Phytase from *Aspergillus terreus*," Agr. Biol. Chem., Vol. 32, No. 10, pp. 1275-1282 (1968)
- C37 Pen, *et al.*, "Phytase-Containing Transgenic Seeds as a Novel feed Additive for Improved Phosphorous Utilization," Bio/Technology, Vol. 11, pp. 811-814 (1993)
- C38 Yamamoto, *et al.*, "Chemical and Physiochemical Properties of Phytase from *Aspergillus terreus*," Agr. Biol. Chem., Vol. 36 (12), pp. 2097-2103 (1972)
- C39 Shieh, *et al.*, "Survey of Microorganisms for the Production of Extracellular Phytase," Appl. Microbiol., Vol. 16, No. 9, pp. 1348-1351 (1968)
- C40 Ullah, *et al.*, "Identification of Active-Site Residues in *Aspergillus ficuum* Extracellular pH 2.5 Optimum Acid Phosphatase," Biochemical and Biophysical Research Communications, Vol. 192, No. 2, pp. 754-759 (1993).
- C41 English Summary of Schoner, *et al.*, "Vergleich der effekte von mikrobieller Phytase und anorganischem Phosphat auf die Leistungen und die Retention von Phosphor, Calcium und Rohasche bei Masthühnerküken in der Anfangsmast," J. Anim. Physiol. a. Anim. Nutr., Vol. 66, pp. 248-255 (1991)

Applicants request that these documents be considered by the Examiner before issuance of a first office action on the merits and made of record in this file. The Examiner is

also asked to initial and return a copy of the enclosed PTO-1449 form to evidence such consideration.

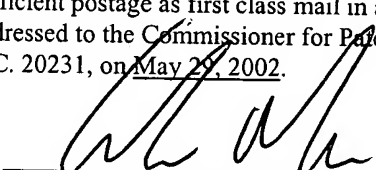
Document C13 above is not in English. However, an English language summary is being provided as Document C41.

This Information Disclosure Statement is being filed in accordance with the following provisions:

[x] 37 CFR § 1.97(b)(3) To the best of the undersigned's knowledge, before the mailing date of a first Office Action on the merits. No fee is required.

If it is determined that a fee is required as set forth in 37 CFR § 1.17(p) or 1.17(i)(1), or if any additional fees are required, please charge such fee (or credit any overpayment) to Deposit Account No. 02-4467. A duplicate copy of this document is enclosed.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the Commissioner for Patents, Washington, D.C. 20231, on May 29, 2002.


Gonzalo Merino, Reg. No. 51,192

Respectfully submitted,

By: 

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Form PTO-1449
(Rev.)U.S. DEPARTMENT OF COMMERCE
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ATTY. DOCKET NO.

13231 US1 (C38435/128425)

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INFORMATION DISCLOSURE STATEMENT
BY APPLICANT

(Use several sheets if necessary)

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	A1	5,436,156	7/1995	Van Gorcom, <i>et al.</i>			
	A2	5,443,979	8/1995	Vanderbeke, <i>et al.</i>			
	A3	5,863,533	1/1999	Van Gorcom, <i>et al.</i>			
	A4	6,291,221	9/2001	van Loon, <i>et al.</i>			
	A5	6,358,722	3/2002	van Loon, <i>et al.</i>			
	A6	6,153,418	11/2000	Lehmann			
	A7	USSN 09/343,126		Brugger, <i>et al.</i>			6/29/99

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	B1	EP 0 299 108 B1	1/1989	Europe				
	B2	EP 0 035 204 A2	9/1981	Europe				
	B3	EP 0 420 358 A1	4/1991	Europe				
	B4	EP 0 422 697 A1	4/1991	Europe				
	B5	EP 0 619 369 A1	10/1994	Europe				
	B6	EP 0 684 313 A2	11/1995	Europe				
	B7	EP 0 747 483 A2	12/1996	Europe				
	B8	EP 0 758 018 A1	2/1997	Europe				
	B9	EP 0 897 010 A2	2/1999	Europe				
	B10	EP 0 897 985 A2	2/1999	Europe				
	B11	WO 91/14773	10/1991	PCT				

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	B12	WO 94/03612	2/1994	PCT				
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	B15	WO 98/54980	12/1998	PCT				
	B16	DE 1 492 060	3/1969	Germany			x	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

C1	Dox, <i>et al.</i> , "Phytase in Lower Fungi," <u>J. Biol. Chem.</u> , Vol. 10, pp. 183-186 (1911)
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C8	Merritt, <i>et al.</i> , "Raster3D Version 2.0. A Program for Photorealistic Molecular Graphics," <u>Acta Cryst.</u> , Vol. D50, pp. 869-873 (1994)
C9	Wodzinski, <i>et al.</i> , "Phytase," <u>Advances in Applied Microbiology</u> , Vol. 42, pp. 263-302 (1996)
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